1. Cascade control has the following:
   a. Two processes, two transmitters, two valves, and two controllers
   b. Two processes, two transmitters, two valves, and no controller
   c. Two processes, two transmitters, one valve, and no controller
   d. Two processes, two transmitters, one valve, two controllers

2. In cascade control
   a. The primary process should be faster than the secondary.
   b. The secondary process should be faster than the primary.
   c. Both processes should be about the same.
   d. The time response of the processes is of little concern.

3. The real advantage of cascade control is to:
   a. Compensate a disturbance in the primary
   b. Eliminate dead time in the primary process
   c. Compensate dead time in the secondary process
   d. Compensate a disturbance in the secondary process

4. Cascade control has an advantage over single element control systems when:
   a. Precise control is required
   b. Control variable time constants are about equal
   c. Control variable dead times are about equal
   d. There is no dead time
   e. There is considerable difference in control system time constants

5. In ratio control,
   a. The wild flow follows the controlled flow.
   b. The wild flow is never controlled.
   c. The controlled flow is set by the wild flow.
   d. The output of the ratio station is independent of the wild flow.
6. Feedforward control:
   a. Anticipates the effect of a process change as well as disturbances
   b. Anticipates the effect of disturbances
   c. Requires measurement of control variables
   d. Does not have offset
   e. Requires digital controllers and calculations

7. Feedforward control operates on the measurement of
   a. Process variable
   b. Manipulated variable
   c. Measured variable
   d. Disturbance variable

8. The process parameter that is most detrimental to good control is:
   a. Capacity
   b. Gain
   c. Time Constant
   d. Dead time

9. Feedforward controller tuning:
   a. Requires self-tuning controllers
   b. Is similar to feedback tuning features
   c. May be empirical or analytical
   d. Is normally not necessary with feedback trim control
   e. May cause process cycling
TC05C2 – Pre-Instructional Survey Answer Sheet

1. d
2. b
3. d
4. e
5. b
6. b
7. d
8. d
9. c